

Appln No. 09/575,198
Amdt. Dated June 4, 2004
Response to Office action of April 8, 2004

10

REMARKS/ARGUMENTS

The Office Action has been carefully considered. The issues raised are traversed and addressed below with reference to the relevant headings and paragraph numbers appearing under the Detailed Action of the Office Action.

Page 1 of the specification has been amended to update the list of co-pending applications with USPTO application serial numbers.

Claim Rejections – 35 USC § 102

In response to the Examiner's objections raised in paragraphs 1 to 8, claim 1 has been amended to clarify the distinctions over the prior art.

In particular, claim 1 has been amended to specify that:

- the first interface includes visible information in addition to the first coded data;
- the visible information is based at least partially on the first document data;
- the first coded data is not substantially visible to an average unaided human eye under daylight or ambient lighting conditions; and,
- the coded data and visible information are printed substantially simultaneously.

A basis for these distinctions this can clearly be found in previous claims 2, 10 and 52, which have now been revised and cancelled respectively.

In Paragraph 4, the Examiner has objected that it would have been obvious to combine the teachings of Knowles and Dymetman et. al. to obtain the invention. We respectfully submit to the Examiner that in view of the revisions to claim 1, this is no longer the case.

As acknowledged by the Examiner in Paragraph 4, Knowles does not explicitly teach that the first coded data is not substantially visible to an average human eye under daylight or ambient lighting conditions. Knowles only teaches printing a URL-encoded bar code symbol on a print medium. Knowles teaches using a bar code reader to scan the visible bar code on the print medium to thereby allow the identity or URL address of the bar code to be determined. The bar code reader that is described in this document is designed to only read visible coded information on a print medium.

It will be appreciated, that by modifying the teachings of Knowles with the invisible markings, as taught by Dymetman et al, a system could be provided that prints invisible bar codes on a print medium. A number of problems exist with such a modification. Firstly this system would result in the user of the bar code scanner not being able to see the bar code, and hence being unable to position or scan the reader in order to determine the identity of the bar code symbol. Secondly, the bar code scanner, which is described in Knowles, uses optical reading technology that utilises visible markings such as an ordinary bar code. This does not therefore describe the current invention, and also suffers major disadvantages, which the current invention solves.

We would also highlight that Dymetman et. al. in column 11, lines 46 onwards, that the coded substrate markings are provided by a coded substrate supplier. The coded substrate is purchased by a publisher, allowing the publisher to print visible markings using standard ink. The printed sheets can then be provided to an end user to allow interaction with the paper.

Appln No. 09/575,198
Amdt. Dated June 4, 2004
Response to Office action of April 8, 2004

11

It will be appreciated, that by combining the teachings of Knowles with Dymetman et. al., this leads to a system in which invisible codes are provided on a substrate by a coded substrate supplier. The substrate would then be provided to a publisher, who will determine the substrate coding, and match this to respective visible information (the URL-encoded bar code) which is then printed thereon. This does not lead to teaching the provision of a printer which can print both visible markings and invisible coded data substantially simultaneously as now set out in claim 1. This combination is particularly beneficial as it allows standard paper to be printed with the required coded data and information by a single printer in order to allow the invention to function.

In contrast the prior art system does not therefore allow the pages to be printed on ordinary paper, which is generally previously unmarked, so that a printer can generate both the coded data and other visible information, but rather requires provision a pre-encoded paper as discussed.

It will be appreciated that in addition to allowing the system to function using standard white paper, which is far more easily obtained, ensures that any association between coded data and printed information is performed centrally and does not need to be coordinated between a supplier or publisher. Thus for example, in the system of Dymetman et al, the publisher will need to determine the substrate coding so that this can be matched to the respective document printed thereon. Details of the association between the coding and the document instance will then need to be supplied to the user's computer system, in order to allow it to determine appropriate responses to input commands.

In the event that the combination is interpreted such that the coded data of Dymetman be used instead of the visible bar codes of Knowles, we believe the comments above still apply, as there is nothing to suggest simultaneous printing.

In view of this, we believe that the combined teaching does not lead to the invention defined in the claims, and therefore we believe that the claims do not render the claims as obvious.

In the event that the Examiner is minded to maintain objections to claim 1, we would draw the Examiner's attention to the fact that a new dependent claim 2 has been added which includes features that are not shown in the prior art documents, and would not be obvious to someone skilled in the art.

In particular, claim 2 describes the invisible coded data and visible information printed in the same particular region. A basis for this can be found in Figure 1, where it is shown that visible information, in the form of name and address fields, are printed in the same particular region as the invisible coded data.

It will be appreciated that by printing the visible information and invisible coded data in the same particular region, a user will be able to see the region indicated by the visual information, such that the region also includes coded data that is indicative of the identity of the region. It will be understood that modifying Knowles by the teachings of Dymetman, a system which leads to prints, in separate steps, visual information and invisible coded data in different regions of the print medium. This is quite different to printing both the visible information and invisible coded data in the same particular region at substantially the same time, and we submit that this introduces further distinctions over the prior art.

In view of this we believe that the claims as amended are novel and inventive over the cited prior art.

Appln No. 09/575,198
Amdt. Dated June 4, 2004
Response to Office action of April 8, 2004

12

In the further event that the Examiner is minded to maintain objections to claims 1 and 2, we would draw the Examiner's attention to the fact that independent claim 71 includes features that are not shown in prior art documents, and would not be obvious to someone skilled in the art. In particular, Claim 71 describes the coded data including a plurality of tags, wherein each tag is indicative of the identity of the region. A basis for these amendments can be found in a combination of previous claims 1 and 11, wherein we have clarified that the first coded data includes two or more tags.

It would be appreciated that by combining the teachings of Dymetman with Knowles, a printed medium could be provided, which may include a visible or invisible bar code symbol. The reader as described by Knowles must read the entire bar code in order to determine the identity of the symbol. If only a part of the barcode is read then the identity cannot be determined. However, this system is quite different to the current invention in that any tag within the region can be read and that tag will indicate the identity of the region. Only a partial reading of the region is required in order for the identity of the region to be determined, which the prior art fails to disclose, and would not have been obvious in light of these document.

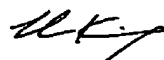
In light of the above, it is respectfully submitted that the objections and claim rejections have been successfully traversed and addressed. The amendments do not involve adding any information that was not already disclosed in the specification, and therefore no new matter is added. Accordingly, it is respectfully submitted that the claims 1 to 71, and the application as a whole with these claims, are allowable, and a favourable reconsideration is therefore earnestly solicited.

Very respectfully,

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